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| **Grade Level ELA Ed Tech Trimester # Task Guide** | | | |
| **Content Standard(s)** | | | |
| **PARCC/Smarter Balanced Assessment Skills**  -Click/tap  -Drag and drop  -Select and drag/slide  -Select object  -Use video player  **NGSS**  PS3: Energy  ETS1: Engineering Design  **CC Mathematical Practices**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning.  **CC Math Standards**  **OA: Operations and Algebraic Thinking, MD: Measurement and Data, GA: Geometry, NBT: Numbers and Operations in Base Ten**  1.OA - Represent and solve problems involving addition and subtraction  1.MD - Reason and interpret data 1.GA - Reason with shapes and their attributes 2.OA - Represent and solve problems involving addition and subtraction 2.MD - Relate addition and subtraction to length 2.GA - Reason with shapes and their attributes 2.NBT - Understand place value 3.OA - Represent and solve problems involving multiplication and division 3.GA - Reason with shapes and their attributes 4.MD.A- Solve problems involving measurement and conversions of measurements 4.MD.C- Geometric measurement: Understand concepts of angles and measure angles.  4.GA- Draw and identify lines and angles and classify shapes by properties of their lines and angles. 4.NBT- Use place value to understand properties of operations and to perform multi-digit arithmetic 5.GA- Graph points on a coordinate plane to solve real-world and mathematical problems 5.NBT- Perform operations with multi-digit whole numbers and with decimals to hundereths  **CC ELA Standards**  **SL: Speaking and Listening, L: Language, W: Writing**  SL.1 - Comprehension and Collaboration  L.1 - Vocabulary Acquisition and Use W.1 - Production and Distribution of Writing  SL.2 - Comprehension and Collaboration L.2 - Vocabulary Acquisition and Use W.2 - Text Types and Purposes SL.3 - Comprehension and Collaboration L.3 - Vocabulary Acquisition and Use W.3 - Text Types and Purposes W.3 - Production and Distribution of Writing SL.4- Comprehension and Collaboration L.4- Vocabulary Acquisition and Use SL.5- Comprehension and Collaboration L.5- Vocabulary Acquisition and Use | | | |
| **Ed Tech Standard(s)** | | | |
| **K**-1.1.1, 1.1.2, 1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **1**-1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2 **2-**1.1.1, 1.2.2, 1.3.1, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **3-**1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.1, 2.3.2 **4**- 1.1.1, 1.1.2, 1.3.1, 1.3.3, 2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **5**-2.1.1, 2.1.2, 2.2.1, 2.2.2, 2.3.2 **6**-2.1.1, 2.1.2, 2.2.2 | | | |
| **Student Task (Description):** | | **Timeframe (Twenty-four 30-minute sessions)** | |
| Students create programs with loops, events, and conditionals and write algorithms for everyday tasks. They will translate their names into binary, investigate different problem-solving techniques, and discuss societal impacts of computing. By the end of the curriculum, students create interactive games or stories they can share. | | | |
| **Content Targets** | **Ed Tech Targets** | | **Vocabulary** |
| **I will be able to...**   * Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (CCSS Math - 1.OA.A.1) * Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. (CCSS Math - 1.MD.C.4) * Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. (CCSS Math - 1.G.A.1) * Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. (CCSS Math 1.G.A.2) * Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. (CCSS Math 2.OA.A.1) * Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. (CCSS Math 2.MD.B.5) * Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (CCSS Math 2.G.A.1) * Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. (CCSS Math 2.G.A.2) * Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. (CCSS Math 2.G.A.3) * Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. (CCSS Math 2.NBT.A.4) * Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. (CCSS Math 3.OA.A.3) * Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. (CCSS Math 3.G.A.2) * Apply the area and perimeter formulas for rectangles in real world and mathematical problems. (CCSS Math 4.MD.A.3) * Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. (CCSS Math 4.MD.C.5) * Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure. (CCSS Math 4.MD.C.7) * Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. (CCSS Math 4.G.A.3) * Fluently add and subtract multi-digit whole numbers using the standard algorithm. (CCSS Math 4.NBT.B.4) * Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. (CCSS Math 5.G.A.2) * Fluently multiply multi-digit whole numbers using the standard algorithm. (CCSS Math 5.NBT.B.5) * Make sense of problems and persevere in solving them. (CC Mathematical Practices 1) * Reason abstractly and quantitatively. (CC Mathematical Practices 2) * Construct viable arguments and critique the reasoning of others. (CC Mathematical Practices 3) * Model with mathematics. (CC Mathematical Practices 4) * Use appropriate tools strategically. (CC Mathematical Practices 5). * Attend to precision. (CC Mathematical Practices 6) * Look for and make use of structure. (CC Mathematical Practices 7) * Look for and express regularity in repeated reasoning. (CC Mathematical Practices 8) * Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups. (CCSS ELA SL.1.1) * Ask and answer questions about key details in a text read aloud or information presented orally or through other media. (CCSS ELA SL.1.2) * With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. (CCSS ELA L.1.5) * Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*). (CCSS ELA L.1.6) * With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (CCSS ELA W.1.6) * Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups. (CCSS ELA SL.2.1) * Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. (CCSS ELA SL.2.2) * Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., *When other kids are happy that makes me happy*). (CCSS ELA L.2.6) * Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. (CCSS ELA W.2.3) * Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly. (CCSS ELA SL.3.1) * Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. (CCSS ELA SL.3.3) * Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*). (CCSS ELA L.3.6) * Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. (CCSS ELA W.3.3) * With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. (CCSS ELA W.3.6) * Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. (CCSS ELA SL.4.1) * Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., *wildlife, conservation,* and *endangered* when discussing animal preservation). (CCSS ELA L.4.6) * Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. (CCSS ELA SL.5.1) * Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*). (CCSS ELA L.5.6) | **I will be able to…**   * Organize objects and ideas using: digital drawing tools, digital templates and graphic organizers, brainstorming/mind mapping software.(Example: Smart Notebook, MSPaint, drawing apps, Inspiration/Kidspiration, spreadsheet, etc.) (K-1.1.1.a I) * Explore and practice skills using teacher-selected interactive resources (Dreambox etc.) (K-1.1.2.a P) * Access content-related digital images, digital stories, audio and video to develop cultural understanding. (K-1.2.2.a I) * Access digital content (audio, video) to build background knowledge and investigate topics. (K-1.3.1.a I) * Discuss and recognize danger in sharing personal information online: password, name, address, phone number or picture. (K-2.1.1.a I) * Understand and comply with the District Acceptable Use Guidelines. (K-2.1.2.a P) * Show respect for opinions and work of others posted electronically. (K-2.1.2.b I) * Properly use a mouse and/or touchpad: single- and double-click, drag-and-drop. (K-2.2.1.a P) * Use left hand on the left side of the keyboard and right hand on the right side of the keyboard simultaneously with thumb on spacebar. (K-2.2.1.b I) * Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (K-2.2.2.a I) * Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (K-2.2.2.b I) * Navigate to and use teacher-selected websites. (K-2.3.2.a I) * Access content-related digital images, digital stories, audio and video to develop cultural understanding. (1-1.2.2.a D) * Access digital content (audio, video) to build background knowledge and investigate topics. (1-1.3.1.a D) * Discuss and recognize danger in sharing personal information online: password, name, address, phone number or picture. (1-2.1.1.a I) * Understand and comply with the District Acceptable Use Guidelines. (1-2.1.2.a P) * Show respect for opinions and work of others posted electronically. (1-2.1.2.b I) * Properly use a mouse and/or touchpad: single- and double-click, drag-and-drop. (1-2.2.1.a P) * Use left hand on the left side of the keyboard and right hand on the right side of the keyboard simultaneously with thumb on spacebar. (1-2.2.1.b D) * Identify the following components: CPU/computer, monitor, mouse /touchpad, speakers, keyboard, headphones/earbuds, microphone. (1-2.2.1.c D) * Locate, identify and use: Enter, Escape, Spacebar, Shift, Arrows, and Backspace. (1-2.2.1.d I) * Demonstrate correct posture while using the keyboard. (1-2.2.1.e I) * Locate, identify, and use letter, number, and punctuation keys. (1-2.2.1.f I) * Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (1-2.2.2.a I) * Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (1-2.2.2.b I) * Turn on speakers, mute, and adjust volume using speaker icon in system tray. (1-2.2.2.c I) * Open and close applications. (1-2.3.1.a I) * Navigate to and use teacher-selected websites. (1-2.3.2.a D) * Organize objects and ideas using: digital drawing tools, digital templates and graphic organizers, brainstorming/mind mapping software. (Example: Smart Notebook, MSPaint, drawing apps, Inspiration/Kidspiration, spreadsheet, etc.) (2-1.1.1.b P) * Access content-related digital images, digital stories, audio and video to develop cultural understanding. (2-1.2.2.a P) * Access digital content (audio, video) to build background knowledge and investigate topics. (2-1.3.1.a P) * Discuss and recognize danger in sharing personal information online: password, name, address, phone number or picture. (2-2.1.1.a D) * Understand and comply with the District Acceptable Use Guidelines. (2-2.1.2.a P) * Show respect for opinions and work of others posted electronically. (2.1.2.b D) * Use left hand on the left side of the keyboard and right hand on the right side of the keyboard simultaneously with thumb on spacebar. (2-2.2.1.b P) * Identify the following components: CPU/computer, monitor, mouse /touchpad, speakers, keyboard, headphones/earbuds, microphone. (2-2.2.1.c P) * Locate, identify and use: Enter, Escape, Spacebar, Shift, Arrows, and Backspace. (2-2.2.1.d D) * Demonstrate correct posture while using the keyboard. (2-2.2.1.e D) * Locate, identify, and use letter, number, and punctuation keys. (2-2.2.1.f D) * Use correct hand-finger, home row, and pairing of fingers. (2-2.2.1.h I) * Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (2-2.2.2.a D) * Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (2-2.2.2.b D) * Turn on speakers, mute, and adjust volume using speaker icon in system tray. (2-2.2.2.c D) * Power on and shut down; log in and log out. (2-2.2.2.d I) * Open and close applications. (2-2.3.1.a D) * Navigate to and use teacher-selected websites. (2-2.3.2.a P) * Use interactive resources. (Example: digital/online: virtual field trips, math manipulatives, Google Maps and other simulations and models, etc.) (3-1.1.2.d I) * Explore and use content-related websites to build background knowledge, investigate topics and plan projects. (3-1.3.1.c I) * Access, analyze and evaluate electronic content-related audio and/or video to make informed decisions. (3-1.3.3.c D) * Discuss and recognize danger in sharing personal information online: password, name, address, phone number or picture. (3-2.1.1.a P) * Understand and comply with the District Acceptable Use Guidelines. (3-2.1.2.a P) * Show respect for opinions and work of others posted electronically. (3-2.1.2.b P) * Locate, identify and use: Enter, Escape, Spacebar, Shift, Arrows, and Backspace. (3-2.2.1.d P) * Demonstrate correct posture while using the keyboard. (3-2.2.1.e P) * Locate, identify, and use letter, number, and punctuation keys. (3-2.2.1.f P) * Use correct hand-finger, home row, and pairing of fingers. (3-2.2.1.h D) * Use mouse: left-click to select, right-click for menus. (3-2.2.1.j I) * Use correct technique for key striking and keying by touch (3-2.2.1.k I) * Use correct spacing between words and following punctuation. (3-2.2.1.l I) * Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (3-2.2.2.a D) * Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (3-2.2.2.b D) * Turn on speakers, mute, and adjust volume using speaker icon in system tray. (3-2.2.2.c P) * Power on and shut down; log in and log out. (3-2.2.2.d D) * Open and close applications. (3-2.3.1.a P) * I will be able to use basic web-navigation skills.(Example: select browser, favorites, URLs, home page, etc.) (3-2.3.2.b I) * Create original multimedia products to present solutions and ideas. I will be able to include text, images, sound, audio and/or video. (Example: infographics, documentary film, music video, etc.) (4-1.1.1.e I) * Use interactive resources. (Example: digital/online: virtual field trips, math manipulatives, Google Maps and other simulations and models, etc.) (4-1.1.2.d D) * Explore and use content-related websites to build background knowledge, investigate topics and plan projects. (4-1.3.1.c D) * Access, analyze and evaluate electronic content-related audio and/or video to make informed decisions. (4-1.3.3.c P) * Create and store strong individual passwords. (Example: Strong password checker found at [www.howsecureismypassword.net](http://www.howsecureismypassword.net)) (4-2.1.1.c I) * Understand and comply with the District Acceptable Use Guidelines. (4-2.1.2.a P) * Use correct hand-finger, home row, and pairing of fingers. (4-2.2.1.h P) * Use mouse: left-click to select, right-click for menus. (4-2.2.1.j D) * Use correct technique for key striking and keying by touch. (4-2.2.1.k D) * Use correct spacing between words and following punctuation. (4-2.2.1.l D) * Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (4-2.2.2.a D) * Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc. (4-2.2.2.b D) * Power on and shut down; log in and log out. (4-2.2.2.d P) * Use basic web-navigation skills. (Ex: select browser, favorites, URLs, home page, etc.) (4-2.3.2.b D) * Create and store strong individual passwords. (Example: Strong password checker found at [www.howsecureismypassword.net](http://www.howsecureismypassword.net)) (5-2.1.1.c D) * Understand and comply with the District Acceptable Use Guidelines. 5-2.1.2.a P) * Use mouse: left-click to select, right-click for menus. (5-2.2.1.j P) * Use correct technique for key striking and keying by touch. (5-2.2.1.k P) * Use correct spacing between words and following punctuation. (5-2.2.1.l P) * Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (5-2.2.2.a D) * Ask for help and/or troubleshoot common technology-related problems. (Example: disconnected cables, caps lock, num lock, etc.) (5-2.2.2.b P) * Use basic web-navigation skills. (Example: select browser, favorites, URLs, home page, etc.) (5-2.3.2.b P) * Create and store strong individual passwords. (Example: Strong password checker found at [www.howsecureismypassword.net](http://www.howsecureismypassword.net)) (6-2.1.1.c P) * Understand and comply with the District Acceptable Use Guidelines. (6-2.1.2.a P) * Identify and describe the impact of ethical and unethical or illegal use of technology on individuals and society. (6-2.1.2.e D) * Use digital equipment effectively. Digital equipment can include: document cameras, digital still camera, digital video camera, microphones, headphones, computers, mobile devices, student response systems (clickers), microscopes, pedometers, interactive whiteboards, calculators, etc. (6-2.2.2.a P) * Generate ideas and create original works for personal and group expression using a variety of digital resources. (1.1.1) * Use models and simulations to explore systems, identify trends and forecast possibilities. (1.1.2) * Identify and define authentic problems and significant questions for investigation and plan strategies to guide inquiry. (1.3.1) * Analyze, synthesize and ethically use information to develop a solution, make informed decisions and report results. (1.3.3) * Practice personal safety. (2.1.1) * Practice ethical and respectful behavior. (2.1.2) * Develop skills using technology. (2.2.1) * Use a variety of hardware to support learning. (2.2.2) * Select and use common applications. (2.3.1) * Select and use online applications. (2.3.2) | | * Algorithm * Binary * Blockly * Bug * Code * Computer Science * Conditionals * Debugging * Digital Footprint * Event * Loop * Pixels * Program * Username |
| **Click here to for the lesson plan outline, instructions for each session, and supporting documents** | | | |